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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,420	06/30/2003	Guy C. Thrap	026471-0801	5709
30542	7590	11/29/2004	EXAMINER	
FOLEY & LARDNER P.O. BOX 80278 SAN DIEGO, CA 92138-0278			LUK, LAWRENCE W	
			ART UNIT	PAPER NUMBER
			2838	

DATE MAILED: 11/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/611,420	THRAP, GUY C.	
	Examiner	Art Unit	
	Lawrence W Luk	2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-10 and 12-15 is/are rejected.
- 7) ☒ Claim(s) 7, 11 and 16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/26/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. This application, filed under former 37 CFR 1.60, lacks formal drawings. The informal drawings filed in this application are acceptable for examination purposes. When the application is allowed, applicant will be required to submit new formal drawings. In unusual circumstances, the formal drawings from the abandoned parent application may be transferred by the grant of a petition under 37 CFR 1.182.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 6, 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Okamura et al. (5,604,426).

As to claim 1, Okamura et al. disclose in figure 6, column 7, lines 35-63, an arrangement for charging a power module, comprising: a power module (PS-A) including one or more Ultracapacitors; an energy source (V1) connected to said power module (PS-A), a positive terminal of said energy source connected to a positive terminal of said power module, and a negative terminal of said energy source connected to a negative terminal of said power module; and a control circuit (U1)

adapted to provide a higher current level to said power module (PS-A) than output by said energy source for at least a portion of a charging period.

As to claim 2, Okamura et al. disclose in figure 6, column 4, lines 37-45, said control circuit is adapted to maintain a constant power level at the power module as the voltage level across the power module increases.

As to claim 6, Okamura et al. disclose in column 9, lines 22-32, said inductor is adapted to limit a current level through said power module to a predetermined peak level.

As to claim 12, Okamura et al. disclose in figure 6, column 7, lines 35-63, a method of charging an ultracapacitor power module, comprising: charging an inductor (L1) connected in series between an energy source (V1) and said power module (PS-A) ; and controlling (U1) a charge level of said inductor (L1) to achieve a desired current level through said power module (PS-A).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-5, 8-10 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamura et al. (5,604,426) in combination with Moon (5,519,307).

As to claims 3, 8 and 13, Okamura et al. disclose said control circuit (U1) and an inductor (L1) connected in series with said power module (PS-A). except for control circuit includes pulse-width modulator.

Moon disclose in figure 4, column 2, lines 41-44 and column 4, lines 42-43, the control circuit includes pulse-width modulator (60).

It would have been obvious to person having ordinary skill in the art at the time of the invention was made to modify the device of Okamura et al. include the control circuit includes pulse-width modulator as taught by Moon for the switches are turned on and off by a signal generated by the pulse width modulator (PWM).

As to claim 4, Okamura et al. in view of Moon are applied supra, and Moon further disclose in column 2, lines 41-50 and 56-64, said pulse width modulator (60) controls a charge level of said inductor (L).

As to claims 5, 9 and 14, Okamura et al. in view of Moon are applied supra, and Moon further disclose in column 1, lines 49-54, said charge level corresponds to a current level which is in accordance with a desired power level at said power module and an instantaneous voltage level across said power module.

As to claim 10, Okamura et al. in view of Moon are applied supra, and Okamura et al. further disclose in column 9, lines 22-32, said inductor is adapted to limit a current level through said power module to a predetermined peak level.

As to claim 15, Okamura et al. in view of Moon are applied supra, and Okamura et al. further disclose in column 4, lines 37-45, said power level is constant during charging of said power module.

Allowable Subject Matter

6. Claims 7, 11 and 16 are objected to as dependent upon a rejected base claim. The prior art of record fails to teach or reasonably suggest that: said control circuit is adapted to provide a current level through said power module greater than a current level from said energy source during at least a portion of a charging period.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence W Luk whose telephone number is (571)272-2080. The examiner can normally be reached on 7 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (571)272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LWL
November 18, 2004

Lawrence Luk
examiner
11/18/04